MTP 15HD RS Series

MTP - Mini Twisted Pair Transmitters and Receivers for VGA and RS-232

SERIES FEATURES

- **Sends high resolution video and RS-232 signals over a single CAT 5-type cable**
- **Receiver models for 600 foot (185 meters) and 1,500 foot (450 meters) transmission**
- **Compatible with high resolution video signals up to 1920x1200**
- **Multiple form factors for a variety of installation environments**
- **Supports RGBHV, RGBS, RGsB, RsGsBs, component video, S-video, and composite video**
- **Compatible with HDTV component video, bi-level or tri-level sync**
- **LED power indicator on front panel**
- **External universal power supply included, replacement part # 70-775-01** — Provides worldwide power compatibility.

DESCRIPTION

The Extron **MTP 15HD RS Series** is a versatile family of mini twisted pair transmitters and receivers for sending high resolution computer-video and RS-232 serial control signals long distances over a single twisted pair cable. All models are compatible with resolutions up to 1920 x 1200 WUXGA and support cable runs of 600 feet (185 meters) or more with XGA signals, and 450 feet (135 meters) or more with UXGA signals.

Extended Distance Receivers

For A/V systems with a need to transmit signals even longer distances, two receiver models, the MTP 1500RL 15HD RS and the MTP 1500RL 15HD RS SEQ, receive high resolution video and RS-232 signals 1,500 feet (450 meters) or more over a single CAT 5-type cable.

Buffered Loop-Through

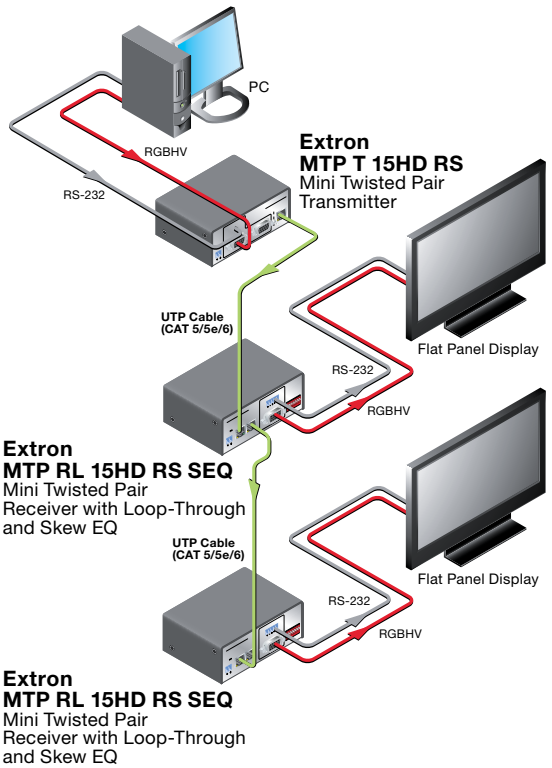
All RL receiver models feature an additional female RJ-45 buffered output, enabling up to eight receivers to be connected in series, reducing the number of parallel cable runs required. Each receiver model also offers separate continuously variable level and peaking adjustments that precisely optimize image quality for various cable lengths.

Integrated Skew Equalization

SEQ receiver models feature an integrated skew equalizer to correct the color misalignment present in twisted pair A/V systems using Category 5, 5e, or 6 cable. Skew is created when the red, green, and blue video signals arrive at the display at different times. Using Extron's skew equalizer technology, the arrival of color signals is synchronized, improving image quality while maintaining full signal integrity.

A Complete Twisted Pair Solution

These transmitters and receivers are part of the larger, comprehensive MTP Series of twisted pair products. They can be used for simple point-to-point applications or in combination with other twisted pair products, including switchers, distribution amplifiers, and matrix switchers, to create more complex A/V systems with multiple inputs and outputs. The Extron MTP Series provides integrators and system designers with the most complete twisted pair product offering in the industry.



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MTP 15HD RS Series

MTP T 15HD RS

MTP - Mini Twisted Pair Transmitter for VGA and RS-232

UNIQUE FEATURES

- Input: Female 15-pin HD connector for video and captive screw connector for RS-232
- Output: Female RJ-45 connector
- Pre-peaking circuit for optimizing video signal on long cable runs
- Buffered local monitor output

MODEL	VERSION DESCRIPTION	PART #
MTP T 15HD RS	Transmitter	60-652-01

MTP 4T 15HD RS

Quad MTP – Mini Twisted Pair Transmitter for VGA and RS-232

UNIQUE FEATURES

- Input: Four female 15-pin HD connectors for video and captive screw connectors for RS-232
- Output: Four female RJ-45 connectors
- Four separate transmitters in a single 1U, rack-mountable enclosure
- Pre-peaking circuit for optimizing video signal on long cable runs
- Four buffered local monitor outputs, one for each transmitter

MODEL	VERSION DESCRIPTION	PART #
MTP 4T 15HD RS	Quad Transmitter	60-905-01

MTP 1500RL 15HD RS

Mini Twisted Pair Extended Distance Receiver for VGA and RS-232

UNIQUE FEATURES

- Receives high resolution video and RS-232 signals 1,500 feet (450 meters) or more over a single CAT 5-type cable
- Input: Female RJ-45 connector and female RJ-45 connector for buffered loop-through
- Output: Female 15-pin HD connector for video and captive screw connector for RS-232
- Low profile enclosure, discreetly mounts behind wall mounted display

MODEL	VERSION DESCRIPTION	PART #
MTP 1500RL 15HD RS	Receiver	60-960-01

MTP 1500RL 15HD RS SEQ

Mini Twisted Pair Extended Distance Receiver for VGA and RS-232 with Skew Equalization

UNIQUE FEATURES

- Receives high resolution video and RS-232 signals 1,500 feet (450 meters) or more over a single CAT 5-type cable
- Input: Female RJ-45 connector and female RJ-45 connector for buffered loop-through
- Output: Female 15-pin HD connector for video and captive screw connector for RS-232
- Independent skew compensation adjustments for each color
- Low profile enclosure, discreetly mounts behind wall mounted display

MODEL	VERSION DESCRIPTION	PART #
MTP 1500RL 15HD RS SEQ	Receiver w/Skew Equalizer	60-960-02

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Extron®

MTP RL 15HD RS

Mini Twisted Pair Receiver for VGA and RS-232

UNIQUE FEATURES

- Input: Female RJ-45 connector and female RJ-45 connector for buffered UTP loop-through
- Output: Female 15-pin HD connector for video and captive screw connector for RS-232
- Separate variable level and peaking controls
- Buffered RJ-45 output for daisy-chaining up to eight receivers

MODEL	VERSION DESCRIPTION	PART #
MTP RL 15HD RS	Receiver	60-735-01

MTP RL 15HD RS SEQ

Mini Twisted Pair Receiver for VGA and RS-232 with Skew Equalization

UNIQUE FEATURES

- Input: Female RJ-45 connector and female RJ-45 connector for buffered UTP loop-through
- Output: Female 15-pin HD connector for video and captive screw connector for RS-232
- Separate variable level and peaking controls
- Buffered RJ-45 output for daisy-chaining up to eight receivers
- Independent skew compensation adjustments for each color

MODEL	VERSION DESCRIPTION	PART #
MTP RL 15HD RS SEQ	Receiver w/Skew Equalizer	60-735-02

MTP R 15HD RSA D

Mini Twisted Pair Receiver for VGA, Audio, and RS-232 - Decora® Wallplate

UNIQUE FEATURES

- Input: Female RJ-45 connector
- Output: Female 15-pin HD connector for video and captive screw connectors for RS-232 and audio
- Supports cable runs of 600 feet (185 meters) or more with XGA signals and 450 feet (135 meters) or more with UXGA signals
- Automatic detection and routing of audio and RS-232 signals to the appropriate output
- Mounts in an included Decora-style wallplate

MODEL	VERSION DESCRIPTION	PART #
MTP R 15HD RSA D	VGA, Audio, and RS-232 Receiver - Decora	60-929-01

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MTP 15HD RS Series

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COMPATIBLE DISTRIBUTION AMPLIFIERS	MODEL DESCRIPTION	PAGE	PART #
MTP DA4	Four Output MTP - Mini Twisted Pair Distribution Amplifier	page 86	60-685-01
MTP DA8	Eight Output MTP - Mini Twisted Pair Distribution Amplifier	page 86	60-686-01

OPTIONAL ACCESSORIES	MODEL DESCRIPTION	PAGE	PART #
SEQ 100 15HD	Skew Equalizer with 15-pin HD Connectors	page 120	60-676-01
RSU 129	1U 9.5" Deep Universal Rack Shelf Kit	page 858	60-190-01
UTP23SF-4/1000	Enhanced Skew-Free™ A/V UTP Cable - 1000' (300 m) spool	page 764	22-141-03
UTP23SF-4P/1000	Enhanced Skew-Free™ A/V UTP Cable - Plenum - 1000' (300 m) spool	page 764	22-142-03
PS 123	12 VDC Rack Mountable, Multiple Output Power Supply	page 734	60-814-01

SPECIFICATIONS

VIDEO

Gain ..... Unity
Number/signal type ..... 1 set of proprietary analog signals
Connectors ..... 1 female RJ-45

VIDEO INPUT AND LOOP-THROUGH — TRANSMITTER(MTP T 15HD RS)

Number/signal type ..... 1 analog RGBHV, RGBS, RGsB, RsGsBs, component video, S-video, or composite video
1 buffered RGBHV, RGBS, RGsB, RsGsBs local monitor loop through (includes ID bits)
Connectors ..... 2 female 15-pin HD
Nominal level ..... 1 Vp-p for Y of component video and S-video, and for composite video
0.7 Vp-p for RGB and for R-Y and B-Y of component video
0.3 Vp-p for C of S-video
Minimum/maximum levels ..... 0.3 V to 1.45 Vp-p
Impedance ..... 75 ohms
Horizontal frequency ..... 15 kHz to 130 kHz
Vertical frequency ..... 30 Hz to 150 Hz
Return loss ..... <-30 dB @ 5 MHz
DC offset (max. allowable) ..... 250 mV

VIDEO OUTPUT — RECEIVERS(MTP RL 15HD RS, MTP RL 15HD RS SEQ)

Number/signal type ..... 1 set of proprietary analog signals
1 analog RGBHV, RGBS, RGsB, RsGsBs, component video, S-video, or composite video
Connectors ..... 1 female RJ-45
1 female 15-pin HD
Nominal level ..... 1 Vp-p for Y of component video and S-video, and for composite video
0.7 Vp-p for RGB and for R-Y and B-Y of component video
0.3 Vp-p for C of S-video
Minimum/maximum levels ..... 0.3 V to 1.45 Vp-p
Impedance ..... 75 ohms
Return loss ..... <-30 dB @ 5 MHz
DC offset ..... <±20 mV with input at 0 offset

SYNC

Input type (transmitter) ..... RGBHV, RGBS, RGsB, RsGsBs
Output type (receivers) ..... RGBHV, RGBS, RGsB, RsGsBs
Standards ..... NTSC 3.58, NTSC 4.43, PAL, SECAM
Input level (transmitter) ..... 3.5 V to 5.5 Vp-p, unterminated
Output level (receivers) ..... 4.0 V to 5.0 Vp-p, unterminated
Input impedance ..... 510 ohms
Output impedance ..... 110 ohms
Max. input voltage ..... 5.5 Vp-p
Polarity
Transmitter ..... Positive or negative (follows input polarity)
Receivers ..... Positive or negative (switch selectable)

CONTROL/REMOTE — EXTERNAL DEVICE(PASS-THROUGH, UNIDIRECTIONAL OR BIDIRECTIONAL)

Serial control port input/output
MTP T 15HD RS ..... RS-232 via (1) 3.5 mm, 3 pole captive screw connector
Receivers ..... 1 set of proprietary signals on a female RJ-45 jack
Serial control port output/input
MTP T 15HD RS ..... 1 set of proprietary signals on a female RJ-45 jack
Receivers ..... RS-232 via a 3.5 mm, 3 pole captive screw connector

NOTE: The serial communications link of an MTP RL 15HD RS or MTP RL 15 HD RS SEQ is unidirectional only, transmitter to receiver, unless the receiver's directional jumper has been repositioned. The jumper should be repositioned only when the receiver is the only one in the system.

Baud rates ..... Up to 38400 bps at up to 600' (183 m) (Higher data rates and distances are possible. Performance will vary based on baud rate and cable length.)
Protocol ..... Data bits = 5 - 8
Stop bits = 1 or 2
Parity = odd, even, none
Flow control = XON, XOFF, none

NOTE: Protocol is mirrored between the transmitter and the receiver.

Serial control pin configurations
Captive screw connectors: 1 = TX, 2 = RX, 3 = GND

GENERAL

External power supply ..... 100 VAC to 240 VAC, 50/60 Hz, external; to 12 VDC, 2 A, regulated
Power input requirements ..... 12 VDC, 0.5 A
Temperature/humidity ..... Storage: -40 to +158 °F (-40 to +70 °C) / 10% to 90%, noncondensing
Operating: +32 to +122 °F (0 to +50 °C) / 10% to 90%, noncondensing
Cooling ..... Convection, unvented
Rack mount ..... Yes, with optional 1U, 9" deep rack shelf (RSU 129, #60-190-01; RSB 129, 60-604-01); 1U, 6" deep rack shelf (RSU 126, #60-190-10; RSB 126, 60-604-10); or VersaTools® 1U, 3" deep rack shelf (RSF 123, #60-190-20; RSB 123, 60-604-20)
Also furniture mountable with optional Mini Under-Desk Mounting Kit, part#70-212-01; or projector mountable with optional projector mounting kit, part#70-217-01
Enclosure type ..... Metal
Enclosure dimensions ..... 1.7" H x 4.3" W x 3.0" D (1U high, quarter rack wide)
4.3 cm H x 10.9 cm W x 7.6 cm D
(Depth excludes connectors.)
Product weight ..... 0.4 lbs (0.2 kg)
Shipping weight ..... 2 lbs (1 kg)
Vibration ..... ISTA 1A in carton (International Safe Transit Association)
Listings ..... UL, CUL
Compliances ..... CE, FCC Class A, VCCI, AS/NZS, ICES
MTBF ..... 30,000 hours
Warranty ..... 3 years parts and labor

NOTE: All nominal levels are at ±10%.

NOTE: Specifications are subject to change without notice.

Note: For complete specifications, please go to www.extron.com

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